

New Infrastructure Investment as a New Engine for Recovery of the Chinese Economy



Jihyun Jung

Ph.D., Research Fellow, Head of China Region and Strategy Team
Korea Institute for International Economic Policy

Infrastructure investment is a stimulus measure commonly used by the Chinese government for economic recovery, and this year is no exception. However, a salient characteristic of this year's measures is that the Chinese government has formulated a new investment direction called "new infrastructure."

What is this new infrastructure investment emphasized by the Chinese government as a new growth engine? In April 2020, China's National Development and Reform Commission (NDRC) released an official report on the meaning and scope of the new infrastructure concept for the first time. According to the report, new infrastructure mainly consists of three aspects: information-based infrastructure such as 5G and IoT; converged infrastructure supported by the application of the internet, big data and AI, such as smart transportation and smart energy infrastructure; and innovative infrastructure that supports scientific research, technology development and product development. In other words, new infrastructure projects include both infrastructure based on scientific (information) and technological innovation related to new industries and new growth elements

within the existing infrastructure, and serve as a signal that China will promote technologies related to 5G networks, IoT, AI, satellite internet, cloud computing, blockchain, data centers and smart computing centers to lead innovative growth.

Then what is new about new infrastructure, distinguishing it from existing infrastructure investments? In general, infrastructure investment intends to improve the production efficiency and social utility of the entire society, and has been mainly promoted by the government's financial input to reduce market failures and externalities rather than profit-seeking. This contributes in part to the stable growth of the economy, but its effect gradually decreases. On the other hand, new infrastructure investment closely linked to new industries and new growth factors can be expected to generate large profits, meaning it does not have to rely solely on government finances and can induce active investment by the private sector. The Chinese government's plan is to push for much of its investment in new infrastructure through private sector investment. In fact, as the Chinese government clarified the scope of new infrastructure and emphasized it as a future investment direction, Baidu, Alibaba and Tencent (BAT), China's three leading Internet companies, announced a series of large-scale investment plans for building digital infrastructure such as data center construction, cloud computing, AI, blockchain, 5G networks, and IoT operating systems.¹ In pursuing these new infrastructure projects, the Chinese government is placing more emphasis on proper coordination and management on the part of the government to maximize investment efficiency, rather than the injection of policy funds.

New infrastructure projects are not a part of policy measures China has recently prepared to overcome the Covid-19 shock, but rather a policy that has been consistently mentioned since 2018 in order to improve the quality of the Chinese economy, upgrade its industrial structure, and strengthen the competitiveness of future industries. Of course, new infrastructure projects have increased in their pace and intensity due to the Covid-19 pandemic, but this rapid progress in the face of the Covid-19 shock was made possible because they are in line with existing policy directions. According to China's Ministry of Finance, the issuance of local government bonds, a major source of infrastructure investment, has increased 22.9% YoY to 3.5 trillion yuan (about \$500 billion) in the first half of 2020, and local governments are actively pursuing their new infrastructure action plans for job creation, economic recovery and industrial development.

¹ Tencent, whose net profit in 2019 was 93.3 billion yuan, announced it would invest 500 billion yuan (about \$70 billion) over the next five years, Alibaba said it would invest 200 billion yuan over the next three years, half of its sales in 2019, and Baidu said it would invest 1.4 billion yuan.

So will new infrastructure investment be able to lead the recovery of the Chinese economy? First of all, while estimates differ by research institutes, new infrastructure projects are expected to account for less than 10 percent of the total infrastructure investment. In particular, a significant portion of infrastructure investment in 2020 will be used to build transportation infrastructure such as high-speed trains. That is, it is hard to expect the new infrastructure investment to play a key role in China's economic recovery in the short term. However, the marginal efficiency of the new infrastructure investment is expected to be higher, so the growth rate of investment driven by new infrastructure projects will be much higher than for traditional infrastructure. In other words, new infrastructure investment is not likely to lead economic recovery in the short term, but it will contribute to China's competitiveness by promoting the digital transformation of the Chinese economy and the development of new industries in the medium-to-long term. These are the positive impacts of new infrastructure investment that the Chinese government hopes to see.

But these hopes on the part of the Chinese government will be realized only when the following problems are resolved. First of all, the majority of China's companies and regions are likely to invest in new infrastructure, as investment in manufacturing and real estate will be difficult to boost due to the reduced demand and excessive investment. Failure to balance these redundant investments with market demand for new industries can result in huge inefficiencies. This would result in a sharp divide from the Chinese government's plans to maximize investment efficiency through new infrastructure. Second, while social members generally share the benefits of infrastructure projects together, the benefits of new infrastructure projects can be excessively concentrated in technology innovation or ICT-related industries. Third, a small number of companies that have grown up in the winner-take-all structure of the digital economy could monopolize the supply of related goods and services. These problems will exacerbate China's economic inefficiency and costs. [KIEP](#)